

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (Currently amended): An electromechanical signal selection device comprising:

a micro-vibrator which can be excited by an input signal;
and

a post for retaining the micro-vibrator,
wherein the physical property of the micro-vibrator can
~~generate a change in physical property due to excitation changes~~
when excited so as to select a ~~selected~~ signal.

Claim 2 (Currently amended): The electromechanical signal selection device according to claim 1, wherein the micro-vibrator comprises a material whose physical property ~~is changed~~ changes in accordance with a crystal structural change when excited.

Claim 3 (Previously presented): The electromechanical signal selection device according to claim 1, wherein the physical property is an electric conduction characteristic.

Claim 4 (Original): The electromechanical signal selection device according to claim 1, wherein the micro-vibrator is retained by an electrode placed on the post.

Claim 5 (Original): The electromechanical signal selection device according to claim 4, wherein a bonded surface between the electrode and the micro-vibrator is located at a distance from the post.

Claim 6 (Original): The electromechanical signal selection device according to claim 1, wherein the post comprises a structure having lower rigidity than that of the micro-vibrator.

Claim 7 (Original): The electromechanical signal selection device according to claim 1, wherein the micro-vibrator comprises a multilayer structure of at least two layers including a material layer generating the change in physical property and a conductor layer.

Claim 8 (Original): The electromechanical signal selection device according to claim 7,
wherein the conductor is formed to be linear, and

wherein the material layer generating the change in physical property is formed around the linear conductor layer.

Claim 9 (Original): The electromechanical signal selection device according to claim 7, wherein the material layer generating the change in physical property is formed on the side where an electric field of a signal is concentrated.

Claim 10 (Original): The electromechanical signal selection device according to claim 9, wherein the material layer generating the change in physical property is formed under the substrate side of the conductor layer.

Claim 11 (Original): The electromechanical signal selection device according to claim 7, wherein half the radius of the conductor is not larger than skin depth of a high frequency signal.

Claim 12 (Original): The electromechanical signal selection device according to claim 1, wherein the micro-vibrator comprises perovskite type transition metal oxide.

Claim 13 (Original): The electromechanical signal selection device according to claim 12, wherein the perovskite type transition metal oxide is PrNiO_3 showing metal-insulator transition.

Claim 14 (Original): The electromechanical signal selection device according to claim 1, wherein the micro-vibrator comprises a piezoresistive effect material.

Claim 15 (Original): The electromechanical signal selection device according to claim 14, wherein the micro-vibrator comprises at least one of Si, $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ and BaTiO_3 .

Claim 16 (Original): The electromechanical signal selection device according to claim 1, wherein the micro-vibrator comprises a superconductor.

Claim 17 (Original): The electromechanical signal selection device according to claim 16, wherein the superconductor is one of Al, Pb, $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ and $(\text{BEDTTTf})_2\text{I}_3$.

Claim 18 (Original): The electromechanical signal selection device according to claim 1, wherein the micro-vibrator comprises a carbon-based material.

Claim 19 (Original): The electromechanical signal selection device according to claim 1, wherein the input signal is supplied through an electrode provided in the micro-vibrator.

Claim 20 (Original): The electromechanical signal selection device according to claim 1, wherein the input signal is supplied through a driving electrode disposed adjacently to the micro-vibrator.

Claim 21 (Previously presented): The electromechanical signal selection device according to claim 20, wherein an external force to be applied to the driving electrode is an electrostatic force.

Claim 22 (Original): The electromechanical signal selection device according to claim 1, wherein a mechanism for applying an external magnetic field to the micro-vibrator is provided to excite the micro-vibrator due to a Lorentz force.

Claim 23 (Original): The electromechanical signal selection device according to claim 1, wherein a mechanism for applying an external magnetic field is provided in a driving electrode or a signal input electrode disposed adjacently to the micro-vibrator so as to excite vibration of the micro-vibrator in a desired direction.